

**Assessment of the USEPA Region 10  
Laboratory Certification Program for Drinking Water**

**Conducted by the  
  
Office of Water  
Office of Ground Water and Drinking Water  
Standards and Risk Management Division  
Technical Support Center**

**Date of Evaluation: March 14-15, 2017**

**Date of Report: June 27, 2017**

## **Introduction**

The Manual for the Certification of Laboratories Analyzing Drinking Water<sup>1</sup> (the Certification Manual), Supplement 1<sup>2</sup> and Supplement 2<sup>3</sup> require the EPA Office of Ground Water and Drinking Water (OGWDW) to review the EPA regional drinking water laboratory certification programs annually and evaluate the resources and personnel in each region to carry out the certification program. To meet this requirement, assessments in the form of questionnaires are performed annually with on-site assessments conducted triennially. Each EPA region is responsible for overseeing the certification of the principal state laboratory (PSL), or a PSL network of laboratories, in every state within the region that holds primacy by assuring each state has the capability to analyze all regulated drinking water contaminants per federal regulations [40 CFR 142.10]. The PSL may be certified by the region, accredited through the National Environmental Laboratory Accreditation Program (NELAP), or recognized through a reciprocity agreement with another state laboratory certification program (SLCP).

If a PSL does not perform analyses for all regulated drinking water contaminants for a state, then the state is required to implement a drinking water laboratory certification program (LCP) to certify commercial and municipal laboratories that analyze drinking water compliance samples. The SLCP may also recognize commercial and municipal laboratories that have been certified or accredited by other SLCPs through reciprocity. The EPA regions are thus also responsible for assessing the adequacy of the SLCPs. Each region holds primacy for all non-primacy states, including tribal governments that oversee public water systems [40 CFR 141.2] and certifies, or recognizes through reciprocity, those laboratories that analyze drinking water compliance samples.

The triennial EPA Region 10 on-site regional laboratory certification program assessment (RLCPA) was conducted March 14-15, 2017 at the EPA Region 10 - Manchester Environmental Laboratory in Port Orchard, Washington. The OGWDW Technical Support Center (TSC) assessment team included Glynda Smith and Paul Grimmert from TSC, with contract support from Laurie Potter of The Cadmus Group.

This report describes the assessment of the EPA Region 10 LCP, which oversees the certification of PSLs and assessment of SLCPs in four primacy states. See Attachment A for a copy of the agenda and Attachment B for a list of attendees at the opening and/or exit meetings during the review. Commendations and recommendations are summarized below. The assessment team had no findings and thus, no written corrective action response to this report is required.

## **1. Assessment Summary**

### **a. Commendations**

1. For the most part, documentation trails for both SLCP assessments (SLCPAs) and PSL audit reports were thorough and complete. The electronic filing system

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<sup>1</sup> Manual for the Certification of Laboratories Analyzing Drinking Water, Fifth Edition, 2005, EPA 815-R-05-004.

<sup>2</sup> Supplement 1 to the Fifth Edition of the Manual for the Certification of Laboratories Analyzing Drinking Water, Supplement 1 to EPA 815-R-05-004, 2008, EPA 815-F-08-006.

<sup>3</sup> Supplement 2 to the Fifth Edition of the Manual for the Certification of Laboratories Analyzing Drinking Water, Supplement 2 to EPA 815-R-05-004, 2012, EPA 815-F-12-006.

on the shared drive is very organized. Documentation is well done, including emails about corrective actions and questions from the state.

2. The technical expertise on-site is apparent when reading the PSL audit reports and state program reviews. Certification officers (COs) are required to maintain proficiency for contaminants and methods that they certify by periodically spending time at the bench performing analyses. This is a practice Region 10 has maintained for years and it's a valuable practice since certification officers serve as technical resources to the labs.
3. While conducting SLCPAs, the Region 10 COs observed several state COs conducting on-site laboratory audits. This is a highly commendable practice and the assessment team strongly encourages all regions to consider observing their state COs performing audits as resources permit.
4. Proficiency testing (PT) sample tracking system seems to be adequate and works for the Regional COs.
5. Katie Adams has shouldered tremendous responsibility in overseeing the state laboratory radiochemistry programs. Though issues remain, progress is being made. The assessment team commends Katie for her work and encourages her to continue those efforts. The assessment team also appreciates her assistance in development of the drinking water radiochemistry detection limit determination document. The document will provide the drinking water laboratory community direction for determining and reporting radiochemistry detection limits that meet the requirement defined in the regulations.
6. The previous RLCPA included a recommendation to archive old files which the Regional Laboratory Certification Program Manager (RLCPM) implemented. Paper files were sent to the federal archives, with electronic versions posted on the shared G: drive. To assist the assessment team, the RLCPM put only the two most recent cycles of SLCPAs and PSL audits, and associated documents, on thumb drives provided to each team member.
7. The electronic shared drive is an asset to the region. It contains SOPs, checklists, pre-survey forms, memoranda of understanding (MOUs) for PSL capability (if relevant), templates for conducting audits and assessing the state programs, correspondence, and copies of emails and other electronic communication. The assessment team applauds the region's efforts to move toward a paperless document management system.
8. When the letter is sent from the region to state laboratory certification officials to schedule the audit, a pre-survey form is requested to be completed prior to the on-site visit to provide the COs with background information helpful to the evaluation. The transmission includes review checklists to be completed for both chemistry and microbiology. Each question in the pre-survey form is justified through a reference to the relevant language from the current edition of the Certification Manual and a citation, if any, to the specific state document or regulation. These items increase productivity for the time spent by a CO on

each audit/assessment, and improve the quality and consistency of reports and notes retained by the region.

**b. Recommendations**

1. While most corrective actions in response to SLCPAs and PSL audits were recorded and present in the electronic files, a couple of exceptions were found in which no corrective actions for findings were found. Some PSL certification letters were issued, despite no documentation that the state had addressed the findings. The RLCPM and COs confirm that a state has addressed SLCPA and/or PSL findings at the next triennial assessment; however, the assessment team recommends that Region 10 follow up with the SLCPs and PSLs in the interim to obtain updated information regarding any open corrective action plans and actions. The assessment team also recommends that the RLCPM add a 30 – 90 day due-date for a corrective action plan and follow up to verify that corrective actions are being addressed. The region should keep a copy of this correspondence in the records to document the SLCP or PSL has implemented the necessary corrective actions. For example, the region should follow up on the backlog of microbiology audits in Washington, scheduled to be completed by April 2017.
2. In some reports, the wording of the findings did not clearly request that the state provide a written response and corrective action. There also were some inconsistencies in SLCPA reports regarding what was considered a finding as opposed to a recommendation. The assessment team recommends that the region uniformly distinguish that a finding in the SLCPA report should trigger development of a corrective action plan and implementation of corrective actions by the state, whereas a recommendation does not require follow-up to the region from the state.
3. Assurance of laboratory capability at the PSL often involves Memorandums of Understanding (MOUs) with contract laboratories or agreements with other state laboratories. The assessment team was not able to find documentation of capability for a small number of regulated contaminants. MOUs or agreements should be pursued by the state of Idaho for chlordane, dioxin, toxaphene, and total PCBs (Method 508A); by the state of Oregon for diquat and endothall; and by the state of Washington for total PCBs (Method 508A).
4. The assessment team had difficulty with the electronic file nomenclature. The name does not indicate what type of document (e.g. PSL audit report, SLCPA assessment report, or certification letter) is contained in the file; instead an internal coding system is used. The assessment team recommends using an electronic file nomenclature that may be more descriptive.
5. The region has not routinely held an annual meeting with their states to discuss drinking water certification topics and any updates to drinking water regulations that affect the program. A meeting was held with the states during the site visit, and the states noted how helpful it was and requested that a meeting be held

next year. The assessment team recommends that the Regional LCPM schedule annual meetings.

6. The assessment team recommends that the regional and state COs attend the TSC regulatory update webinar that is being planned for 2017.
7. The assessment team recommends that the region ensure that all regional and state COs have passed the EPA CO training course and attend EPA CO training every five years when possible. Two regional COs, Eunice Chern (microbiology) and Doug Wood (chemistry), are slated to attend the 2017 CO courses. Hank Huang (Idaho CO for chemistry) and Aimee Bennett (Washington CO for microbiology) were due for their 5-year CO training refresher in 2016. The assessment team recommends reaching out to those state COs and urging them to also attend the training, if finances allow. Aimee Bennett's nomination form was submitted to Cincinnati on March 6, 2017.

## **2. EPA Region 10 Laboratory Certification Program Overview**

The Region 10 drinking water program is located in the EPA Region 10 office in Seattle, Washington, while the Region 10 drinking water LCP is based at the Manchester Environmental Laboratory, in Port Orchard, Washington. The Region 10 Certification Authority (CA) has been delegated to David Allnutt, the Director of the Office of Environmental Review and Assessment. Barry Pepich serves as the Regional Laboratory Director. Gerald Dodo is the RLCPM for Chemistry and Stephanie Bailey is the RLCPM for Microbiology. The eight regional COs, including Mr. Dodo and Ms. Bailey, are Katie Adams (Chemistry), Stephanie Le (Chemistry), Christopher Pace (Chemistry), Dana Walker (Chemistry), Doug Wood (Chemistry), and Eunice Chern (Microbiology). Five of the regional COs have attended the EPA CO training course within the past five years. Their certification responsibility and EPA training status are included in Attachment C. Two COs are slated to attend the 2017 training course: Eunice Chern for Microbiology and Doug Wood for Organic Chemistry. Stephanie Bailey last audited the CO training in 2011.

The EPA Region 10 LCP oversees SLCPAs and certification of PSLs/PSL networks in four primacy states: Alaska, Idaho, Oregon, and Washington. Region 10 has 271 federally recognized tribes, but none of the tribes operates a DW program. EPA Region 10 does not audit or certify any tribal laboratories.

## **3. EPA Region 10 State Laboratory Certification Program Assessments**

To meet the Certification Manual's recommendation for yearly review of the SLCPs, EPA Region 10 asks the states to complete the TSC Annual Questionnaire, and then collates the responses for TSC. All states in the region responded fully to the 2016 Annual Questionnaire. At least triennially, the region performs on-site assessments of the Alaska, Idaho, Oregon, and Washington LCPs. The region is currently up-to-date on these SLCPAs. Oregon is recognized as a NELAP Accreditation Body (AB) and assessment of the ORELAP is conducted by The NELAC Institute (TNI) evaluation teams for NELAP. Region 10 conducts their own PSL audits and state program assessments regardless of whether a lab has NELAP accreditation or a state is a NELAP-AB.

During the SLCPAs, the region conducts interviews with staff and reviews in-state and out-of-state laboratory audit reports, PT tracking systems, SOPs, checklists, training records, previous annual questionnaires, state-specific regulations, past assessment reports and corrective action plans where applicable. The region also observes state COs conducting laboratory audits. Region 10 maintains thorough documentation of SLCPA-related materials. Attachment D provides a table that lists the number of drinking water laboratories certified by each state program.

The Region 10 SOP for SLCPAs indicates that the RLCPM reviews the state CO training and experience. Attachment E lists the COs for each Region 10 state, their areas of responsibility and the last time they attended the EPA CO training course. Most state COs have attended the CO training course in the past five years, but Hank Huang (Idaho CO for chemistry) and Aimee Bennett (Washington CO for microbiology) are overdue for their 5-year CO training refresher, which was due in 2016. These state COs would benefit from attending the course for refresher training. No third party assessors are used in the Alaska, Idaho, Oregon, or Washington SLCPs.

The region recommends the APHL website and presentation files from the Region 10 Laboratory's ethics training to state and laboratories. No occurrence of a prohibited practice, improper pattern or unethical act occurring in a laboratory has been reported to the region this past year.

The SOP requires all COs to complete a yearly ethics training course. If the assessor observes/detects unethical procedures during technical reviews or data audits as part of the onsite, they are to document their observations and immediately contact EPA's Criminal Investigation Division and Regional Counsel.

#### **4. EPA Region 10 Principal State Laboratory Audits**

PSLs in primacy states are responsible for fulfilling the requirements of 40 CFR 142.10(b)(4) and have the capability (or have access to laboratories with the capability) to perform analytical testing for all contaminants specified in the national primary drinking water regulations.

The assessment team reviewed the 4 state programs and determined some cases where the PSL/PSL networks had not ensured capability to analyze some drinking water compliance samples. If a state cannot provide capability through its PSL/PSL network, the PSL should establish contracts or MOUs with other PSLs or commercial laboratories that are certified for those contaminants. Evidence of contracts or MOUs were not found in all cases in the PSL files that the TSC assessment team examined. Therefore, it is recommended that Region 10 encourage the PSLs that are missing coverage for any regulated drinking water contaminants to either provide copies of contracts/MOUs or document in writing where they would send drinking water compliance samples in the event of an emergency. All 4 states need MOUs for some analytes.

**Alaska:** The state has no direct chemistry or radiochemistry capability. The PSL for the Idaho (Idaho Bureau of Laboratories – IBL) serves as Alaska's chemistry and radiochemistry PSL. Alaska has an MOU which designates IBL as its PSL. The shortcomings identified for Idaho therefore also extend to Alaska.

**Idaho:** Alaska and Idaho outsource all radiochemistry analyses to Eurofins-Eaton Laboratory in South Bend, Indiana, which is accredited by FL-NELAP. Alaska accepted TNI's accreditation through reciprocity. In June 2014, Region 5 accompanied the TSC radiochemistry audit support contractor on an audit of the Eurofins laboratory to verify equivalency of the NELAP audit results to the Certification Manual drinking water

requirements. Numerous issues were cited. Eurofins continues to make progress toward bringing their program in-line with EPA Cert. Manual requirements. A certification letter was issued March 1, 2017 granting certification for gross alpha/beta and tritium (SM 7110 B,C and EPA Method 906.0). Region 10 expects to provide full certification for radium-226 and radium-228 in early 2017. At the time of the 2015 PSL audit and SLCPA, IBL was not certified for chlordane, dioxin, endothall, total PCBs (both screening method and Method 508A), toxaphene, or cyanide. IBL chose to discontinue use of Method 335.4 for cyanide and was decertified in April 2016. The effort to become certified for cyanide by Method ME355.01 is, however, taking longer than expected. The state lists Anatek Labs in Moscow, Idaho to serve as the PSL for Method 505 for chlordane, toxaphene, and PCBs however an MOU is not in place. The state has planned to develop capabilities for these analytes, plus endothall, by the next triennial review. The concerns about endothall and PCBs using Method 508A also were not noted in the SLCPA. However, the process for IBL to be certified for chlordane, endothall, toxaphene and PCBs took longer than expected. Certification for endothall was achieved in November 2015, but the state still does not have certification for chlordane, toxaphene or PCBs. An MOU with the Oregon Department of Environmental Quality (ODEQ) for dioxin was created in May 2014.

**Oregon:** Oregon (and Washington) outsource all radiochemistry analyses to TestAmerica in Richland, Washington. ORELAP conducted an audit of TestAmerica on December 7-8, 2011 and issued NELAP accreditation to the laboratory, which remains current. The ORELAP accreditation has served as the basis for Washington and Oregon to seek PSL capability for radionuclides through TestAmerica. An MOU was established between the state of Oregon and the laboratory on July 19, 2012. On March 5-7, 2013, EPA Region 10 and the TSC radiochemistry expert audited TestAmerica Richland to verify equivalency of the NELAP audit results to the Certification Manual drinking water requirements. Numerous findings were issued related to non-compliance with the approved methods which should have been found in the ORELAP audit. The TestAmerica laboratory has made progress in bringing their radiochemistry program into compliance. However, because of the large number of methods involved, progress to resolve findings has been slow, and SOP revisions and demonstration of capability data are still in process. Neither ODEQ or ODA is certified for diquat or endothall. The 2017 Annual Questionnaire noted that ODEQ is still working on developing capability for diquat and the onsite records demonstrated progress towards certification for endothall.

**Washington:** The private PSL network does not provide direct capability for radiochemistry or total PCBs (Method 508A). Washington and Oregon outsource all radiochemistry analyses to TestAmerica in Richland, Washington. Washington received a letter dated August 11, 2011 from the laboratory accepting PSL radiochemistry responsibilities for the state. Therefore, the status of the Washington's radiochemistry program is equivalent to that of the Oregon radiochemistry program, as reported above. Washington is currently trying to find a laboratory to serve as the PSL for Method 508A, but it has been difficult as labs contacted have noted high costs to set up to run Method 508A and low demand for the capability.

All PSL audits in the last triennial cycle were completed on schedule and the region's audits of PSLs for chemistry and microbiology are anticipated to be completed on schedule in the current

triennial cycle. ORELAP audits of Edge Analytical Laboratory in Burlington, Washington (which is part of the Washington PSL network for chemistry) and TestAmerica laboratory in Richland, Washington are also current, although the region's audit of the TestAmerica Richland laboratory notes that some corrective actions are still underway and have not been finished. The RLCPM does not accompany the ORELAP auditors during the PSL audits. Instead, the RLCPM performed a paper audit for the Edge Analytical laboratory and accompanied the TSC radiochemistry audit support contractor on an independent audit of TestAmerica Richland. The TSC assessment team did not review the ORELAP report for the chemistry audit conducted at the Edge Analytical laboratory.

On-site audits are well planned with the PSLs. Region 10 sends a pre-survey information form prior to the onsite visit. Onsite visits include interviews with staff, review of the methods, SOPs, QA documents, and PT results since the previous on-site audit. The EPA Region 10 audit reports are thorough and issued in a timely manner. The reports include: the certification status of the PSL, overview of personnel and evaluation of training records, laboratory facilities, laboratory equipment and instrumentation, general laboratory practices (including safety and QA), staff capability to perform the required analytical methods, and records and data reporting (including legal defensibility and records management). The TSC assessment team noted the RLCPM does not track preparation of corrective action plans (CAPs) in all cases. Some email correspondence between the RLCPM and laboratory directors regarding progress toward meeting the required corrective actions was provided, but it was incomplete. Certificates issued by Region 10 to the PSLs appropriately list each method and analyte, as well as the expiration date.

Region 10 receives PT study reports from vendors and the electronic files are saved on a local drive used by the microbiology and chemistry COs who track them. The COs periodically enter results into an Excel file and confirm that the laboratories have passed. Any result that is "not acceptable" is highlighted and the laboratory is contacted. The TSC assessment team saw evidence in the files of correspondence between the RLCPM and the PSLs regarding PT failures.

## **5. Records Management**

The region stores most records on the shared G: drive. LCP records include recent PSL audit reports and SLCPAs, correspondence, checklists and completed presurvey information forms, corrective action plans, certification letters for PSLs, data packages, state and laboratory SOPs, PT reports, emails, and responses to annual questionnaires. PT results and Excel summary tracking sheets for PTs are stored on local computers used by the COs responsible for PTs. The G: drive records go back further than two triennial cycles.

Useful files, such as checklists, the pre-survey form, and templates for conducting laboratory audits and assessing the SLCPs, are also available on the G: drive.

## **6. Communication and Technical Assistance**

Region 10 maintains qualified staff with appropriate technical expertise on the laboratory certification team. The SOP specifies in the personnel qualifications that auditors must have documented evidence of having been employed in the conduct of bench scale laboratory testing within the past 5 years. The SOP specifies that "This experience requirement would necessitate evaluation of the nature of the bench work as well as the amount of time spent in performing

various analytical methods.” COs are required to maintain proficiency for contaminants and methods that they certify for by periodically spending time at the bench performing analyses. Such a team of technical personnel serves to strengthen the laboratory certification program thereby protecting public health. The Region 10 Laboratory certification team members’ familiarity with the approved drinking water methods enables them to serve as technical experts to the laboratories they oversee, and the region provides regular technical assistance to the PSLs upon request.

The RLCPM and the Laboratory Director meet on the first Wednesday of every month with the Region 10 Drinking Water unit manager.

The region does not hold regular annual meetings with the state COs as recommended by the Certification Manual and described in the Region 10 LCP state laboratory certification program oversight SOP. A joint meeting with the assessment team, Region 10 COs, and the states was held during the on-site visit. Washington COs participated in person and the other states linked in by conference call. The states expressed interest in reestablishing annual calls to cover regulatory updates and state questions. The assessment team encourages the region to meet regularly with the state COs and recommends that state COs as well as regional COs attend the regulatory update webinar TSC is planning for 2017.

**Attachment A**  
**Agenda: EPA Region 10 Laboratory Certification Program Assessment**  
**March 14 - 15 ,2017**

**Tuesday, March 14**

Arrive at Region 10 lab by 9:00 a.m.

Approx. 9:15 – 9:30 Opening Meeting

- Introductions of TSC assessment team and Region 10 attendees
- Confirm scope of assessment activities
  - Review records of Region 10 oversight and certification of Principle State Laboratories
  - Review records of Region 10 oversight of State laboratory certification programs
  - Confirm PTs are being performed/passed
- Confirm schedule
  - Establish time for closing meeting

9:30 – Noon    Review Region 10 records

1:00 – 4:30    Continue record reviews

**Wednesday, March 15**

Arrive at Region 10 lab by 9:00 a.m.

9:00 – 10:00   Continue record reviews

10:00 – 11:00 Conference Call/Q&A Session with Region 10 State Lab Cert Staff

11:00 – Noon   Continue record reviews

Noon – 1:00    Lunch

1:00 – 3:30    Continue record reviews and prepare for closing meeting

3:30 – 4:30    Closing Meeting and time to address questions

## Attachment B

### Attendees at Meetings for the March 2017 EPA Region 10 RLCPA

|     | Participant      | Program                                  | Role                                     | Meeting                          |
|-----|------------------|--|--|----------------------------------|
| 1.  | Barry Pepich     | EPA Region 10,<br>Regional<br>Laboratory | Laboratory Director                      | Opening<br>meeting<br>(by phone) |
| 2.  | Gerald Dodo      | EPA Region 10,<br>Regional<br>Laboratory | RLCPM-Chemistry                          | Opening and<br>exit meetings     |
| 3.  | Stephanie Bailey | EPA Region 10,<br>Regional<br>Laboratory | RLCPM-<br>Microbiology                   | Opening and<br>exit meetings     |
| 4.  | Chris Pace       | EPA Region 10,<br>Regional<br>Laboratory | Regional CO                              | Opening and<br>exit meetings     |
| 5.  | Dana Walker      | EPA Region 10,<br>Regional<br>Laboratory | Regional CO                              | Opening<br>meeting               |
| 6.  | Stephanie Le     | EPA Region 10,<br>Regional<br>Laboratory | Regional CO                              | Opening and<br>exit meetings     |
| 7.  | Eunice Chern     | EPA Region 10,<br>Regional<br>Laboratory | Regional CO                              | Exit meeting                     |
| 8.  | Katie Adams      | EPA Region 10,<br>Regional<br>Laboratory | Regional CO                              | Opening and<br>exit meetings     |
| 9.  | Glynda Smith     | EPA<br>OGWDW/TSC                         | TSC Lead Assessor,<br>Assessment Team    | Opening and<br>exit meetings     |
| 10. | Paul Grimmett    | EPA<br>OGWDW/TSC                         | TSC Assessment<br>Team                   | Opening and<br>exit meetings     |
| 11. | Laurie Potter    | The Cadmus<br>Group                      | Contractor,<br>Assessment Team<br>member | Opening and<br>exit meetings     |

### Attachment C

#### Area of Responsibility and Training Status of Regional Laboratory Certification Program Personnel

| <b>Title</b>   | <b>Name<br/>Office/Branch</b>   | <b>Area(s) of<br/>Responsibility</b><br>(Specify<br>Chemistry,<br>Microbiology,<br>Radiochemistry,<br><i>Cryptosporidium</i> ,<br>etc.) | <b>Year<br/>Passed<br/>EPA CO<br/>Training</b> | <b>Year<br/>Last<br/>Audited<br/>EPA CO<br/>Training</b> | <b>Year of<br/>most recent<br/>audit by CO</b> |
|--|---|---|--|--|--|
| Regional Administrator   | Michelle Pirzadeh<br>(Acting RA)  | -----   | n/a  | n/a  | n/a  |
| Regional Certification Authority (CA)                                    | David Allnutt, Director<br>Office of Environmental<br>Review and Assessment<br>(OERA) | -----   | n/a  | n/a  | n/a  |
| Regional Laboratory Director   | Barry Pepich<br>OERA, Region 10<br>Laboratory   | -----   | n/a  | n/a  | n/a  |
| Regional Laboratory Certification Program Manager (RLCPM - Chemistry)    | Gerald Dodo,<br>Supervisory Chemist<br>OERA, Region 10<br>Laboratory                  | Chemistry   | 2009   | 2014   | 2016   |
| Regional Laboratory Certification Program Manager (RLCPM - Microbiology) | Stephanie Bailey,<br>Microbiologist<br>OERA, Region 10<br>Laboratory                  | Microbiology  | 2006   | 2011   | 2016   |
|  |   |   |  |  |  |
| Regional Certification Officer (Regional CO)                             | Katie Adams<br>OERA, Region 10<br>Laboratory  | Chemistry-<br>Inorganic   | 2006   | 2013   | 2016   |
| Regional CO  | Stephanie Le<br>OERA, Region 10<br>Laboratory   | Chemistry-<br>Inorganic   | 2008   | 2013   | 2016   |

| <b>Title</b> | <b>Name<br/>Office/Branch</b>   | <b>Area(s) of<br/>Responsibility</b><br>(Specify<br>Chemistry,<br>Microbiology,<br>Radiochemistry,<br><i>Cryptosporidium</i> ,<br>etc.) | <b>Year<br/>Passed<br/>EPA CO<br/>Training</b> | <b>Year<br/>Last<br/>Audited<br/>EPA CO<br/>Training</b> | <b>Year of<br/>most recent<br/>audit by CO</b> |
|--------------|---|---|--|--|--|
| Regional CO  | Christopher Pace,<br>Organic Technical Lead<br>Chemist<br>OERA, Region 10<br>Laboratory | Chemistry -<br>Organic  | 2004   | 2014   | 2016   |
| Regional CO  | Dana Walker<br>OERA, Region 10<br>Laboratory  | Chemistry -<br>Organic  | 2011   | 2016   | 2016   |
| Regional CO  | Eunice Chern<br>OERA, Region 10<br>Laboratory   | Microbiology  | Planned<br>2017                                |  |  |
| Regional CO  | Doug Wood<br>OERA, Region 10<br>Laboratory  | Chemistry -<br>Organic  | Planned<br>2017                                |  |  |

**Attachment D**  
**Primacy State Drinking Water Laboratory Certification/Accreditation Programs**  
**Number of Certified Laboratories (In- and Out-of-State)**

| Primacy State | State Laboratory Certification Program Assessments |               | Number of Laboratories Certified |              |                |                        |          |
|---------------|--|---------------|----------------------------------|--------------|----------------|------------------------|----------|
|               | Agency   | Assessor      | Chemistry                        | Microbiology | Radiochemistry | <i>Cryptosporidium</i> | Asbestos |
| Alaska        | Alaska Dept. of Environmental Conservation (DEC)   | EPA Region 10 | 6 (7)                            | 24 (1)       | 0 (5)          | 0 (2)                  | 0 (1)    |
| Idaho         | Idaho Bureau of Laboratories (IBL)                 | EPA Region 10 | 6 (25)                           | 13 (5)       | 1 (10)         | 0 (2)                  | 0 (3)    |
| Oregon        | Oregon ELAP (ORELAP)                               | EPA Region 10 | 22 (53)                          | 27 (34)      | 0 (9)          | 1 (10)                 | 1 (3)    |
| Washington    | Washington Dept. of Ecology (DEC)                  | EPA Region 10 | 51 (33)                          | 65 (10)      | 2 (13)         | 1 (4)                  | 1 (4)    |

## Attachment E

### Principal State Laboratory Certified by the Region

| State/Territory/<br>Tribe/Other | Laboratory<br>Name and<br>Location                                    | Laboratory<br>Type | Chemistry   | Microbiology               | Radiochemistry  | <i>Cryptosporidium</i> |
|---------------------------------|---|--------------------|---|----------------------------|---|------------------------|
| AK                              | Alaska<br>Environmental<br>Health<br>Laboratory,<br>Anchorage,<br>AK  | State              |   | EPA Region<br>10 (5/2016)  |   |                        |
| ID/AK                           | Idaho Bureau<br>of<br>Laboratories<br>(IBL), Boise,<br>ID             | State              | EPA<br>Region 10<br>(3/2015)                          | EPA Region<br>10 (3/2015)  |   |                        |
| ID/AK                           | Eurofins,<br>Southbend, IN  | Commercial         |   |                            | Reciprocity thru<br>TNI FL DOH<br>but also audited<br>by TSC/EPA<br>Region 10<br>(6/2014) to<br>verify<br>equivalency.            |                        |
| OR                              | Oregon Public<br>Health<br>Laboratory,<br>Hillsboro, OR               | State              |   | EPA Region<br>10 (11/2015) |   |                        |
| OR                              | Oregon<br>Department of<br>Environmental<br>Quality,<br>Hillsboro, OR | State              | EPA<br>Region 10<br>(11/2015)                         |                            |   |                        |
| OR                              | Oregon<br>Department of<br>Agriculture,<br>Portland, OR               | State              | EPA<br>Region 10<br>(11/2015)                         | EPA Region<br>10 (11/2015) |   |                        |
| OR, WA                          | Test America,<br>Richland, WA   | Commercial         |   |                            | TNI ORELAP,<br>FL DOH present<br>but COI for OR.<br>TSC/EPA<br>Region 10<br>(3/2015)<br>performed on-<br>site to mitigate<br>COI. |                        |
| WA                              | Water<br>Management<br>Laboratories,<br>Tacoma, WA                    | Commercial         | EPA<br>Region 10<br>(11/2013)<br>next audit<br>3/2017 | EPA Region<br>10 (2/2015)  |   |                        |

## Attachment F

### Area of Responsibility and Training Status of Certification Officers in Primacy States

| <b>Name/Affiliation</b>                    | <b>State</b> | <b>Area(s) of Responsibility</b><br>(Specify Chemistry, Microbiology, Radiochemistry, <i>Cryptosporidium</i> , etc.) | <b>Year Passed EPA CO Training</b> | <b>Year Last Audited EPA CO Training</b> |
|--|--------------|--|------------------------------------|--|
| Shera Hickman/ADEC                         | Alaska       | Chemistry  | 2006                               | 2016                                     |
| Kelly Garretts/ADEC                        | Alaska       | Microbiology   | 2016 (Micro and Crypto)            |  |
| Hank Huang/Idaho Bureau of Labs            | Idaho        | Chemistry  | 2003                               | 2011                                     |
| Lisa Beasley-Morrison/Idaho Bureau of Labs | Idaho        | Chemistry  | 2012                               |  |
| Robert Voermans/Idaho Bureau of Labs       | Idaho        | Microbiology   | 2015                               |  |
| Susan Russell/Idaho Bureau of Labs         | Idaho        | Chemistry  | 2016                               |  |
| Shannon Swantek/ORELAP                     | Oregon       | Chemistry<br>Microbiology  | 2010<br>2013                       | 2015                                     |
| Lizbeth Garcia/ORELAP                      | Oregon       | Chemistry  | 2007 (inorg)<br>2015 (org)         | 2014 (inorg)                             |
| Chris Redman/ODEQ/ORELAP                   | Oregon       | Chemistry  | 2003                               | 2013                                     |
| Heather Cayton/ODEQ/ORELAP                 | Oregon       | Chemistry<br>Microbiology  | 2014<br>2016                       |  |
| Sophia Caggiano/ODEQ/ORELAP                | Oregon       | Chemistry  | 2016                               |  |
| RaeAnn Haynes/ ORELAP                      | Oregon       | Chemistry  | 2000                               | 2016                                     |
| Alan Rue/WA Dept of Ecology                | Washington   | Chemistry  | 2001                               | 2013                                     |

| <b>Name/Affiliation</b>           | <b>State</b> | <b>Area(s) of Responsibility</b><br>(Specify Chemistry, Microbiology, Radiochemistry, <i>Cryptosporidium</i> , etc.) | <b>Year Passed EPA CO Training</b> | <b>Year Last Audited EPA CO Training</b> |
|-----------------------------------|--------------|--|------------------------------------|--|
| Aimee Bennett/WA Dept of Ecology  | Washington   | Microbiology<br><br>Cryptosporidium  | 2006<br><br>2013                   |  |
| Kamilee Ginder/WA Dept of Ecology | Washington   | Chemistry  | 2012                               |  |
| Rebecca Wood/WA Dept of Ecology   | Washington   | Chemistry  | 2016                               |  |